DOCUMENT RESUME

ED 389 437 PS 023 783

AUTHOR Morgan, Harry

TITLE Pragmatic Language in Early Childhood Education:

Behavior and Thought in Teaching.

PUB DATE Apr 93

NOTE 30p.; For earlier version of this paper, see ED 354

063. Paper presented at the Annual Meeting of the American Educational Research Association (Atlanta,

GA, April 12-16, 1993).

PUB TYPE Reports - Research/Technical (143) --

Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.

DESCRIPTORS Class Organization; Classroom Environment; Classroom

Techniques; Elementary Education; *Elementary School Students; Student Behavior; Teacher Behavior; Teacher

Role; *Teacher Student Relationship; *Verbal

Communication

ABSTRACT

Through observation of teacher language responses, this study examined interaction practices that inhibited, ended, or sustained children's classroom participation. Thirty early childhood educators were observed during 105 30-minute language art classes; 998 female and 1,188 male K-4th grade students were observed. Interactions were coded into one of two modes, instruct or manage, and further categorized as sustain, extend, change, or stop. Results showed a significant relationship between the instruct mode and extend and sustain interactions; this correlation was strongest in fourth grade and weakest in first grade. Language that stopped interactions was only significant in fourth grade; fourth grade also showed the most language interaction overall. In early grades, teachers' language interactions stimulate active student language parti ipation. (Contains 25 references.) (JW)



U.S. DEPARTMENT OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC;

CENTER (ERIC)

They document has been reproduced as recrived from the person or organization originating it

- Minor changes have been made to improve reproduction quality
- Points of view or opinions stated in this document do not necessarily impresent official OERI position or pulicy.

PRAGMATIC LANGUAGE IN EARLY CHILDHOOD EDUCATION: BEHAVIOR AND THOUGHT IN TEACHING

PRESENTED AT: THE ANNUAL MEETING OF THE AMERICAN EDUCATIONAL RESEARCH ASSOCIATION, ATLANTA, 1993

HARRY MORGAN WEST GEORGIA COLLEGE CARROLLTON, GA 30118 404 836-6559

> A CHARLES AND CHARLES OF SALES MACHENIA HACEBOOK ON A CONTRACT

Morgan

BEST COPY AVAILABLE





Pragmatic Language In Early Childhood Education: Behavior And Thought In Teaching

Abstract

This study attempted to document current language interaction practices in selected early childhood settings during language arts activities. Teacher language responses during planned lessons, that encouraged, inhibited, or prevented or stopped a child's attempt to be a language participant in the on-going life of the classroom were studied. Thirty early childhood teachers were observed for 105 sessions of 30 minute duration during language arts lessons in their own classrooms. There were 2,185 pupils involved in the study. Of that group 998 were girls, 1,188 boys. Black girls comprised 37, black boys 38, white girls 961, and white boys totaled 1,149. Tabulations were made in 2 modes (instruct, manage), and across 4 categories (sustain, extend, change and stop).

Pearson product-moment correlations revealed a significant linear relationship between the instruct mode, and extend and sustain categories of teacher-pupil language interaction in all grades as a group (K-4), at p < .05. The highest correlations occurred in 4th grade, and the lowest correlations occurred in 1st grade. It is also true, that significant correlations were reported for sustain and/or extend for all grades.

Descriptive statistics were employed to obtain means and standard deviations.

Kindergarten and the 4th grade displayed the highest levels of extend and sustain, in the instruct mode. Also, language that functioned to stop teacher-pupil interaction was only significant in the 4th grade in the sustain, extend and change categories. The 4th grade reported more language interaction overall, than any other grade under study. Results suggest that, in the early grades, more often than not, young children are encouraged by their teachers to be active language participants.



Pragmatic Language in Early Childhood Education: Behavior and Thought in Teaching

Introduction

It was Vygotsky (1962), and Chomsky (1968), who taught us an appreciation for language in personal and social contexts. It was Vygotsky's view that language and thought were interdependent and integrated with experience. Chomsky suggested that we all have an innate ability for language acquisition, and a language-rich environment will enable young children to learn language rather rapidly.

Teacher/learner interactions at all levels of schooling are based primarily upon a transfer of information through the use of language. In these teaching/learning environments, language, as a natural consequence of development, is used to inform, educate, control and influence. The primary focus of this study, was to determine the extent to which experienced early childhood teachers encouraged or inhibited children as language participants in the classroom. Serbin (1975) has suggested that early in childcare, language interaction is gender related, and that



opportunities for boys are provided more often than for girls.

Learned societies, and theorists associated with early childhood education have historically taken the position that didactic instruction of discrete skills as an approach to teaching children from preschool to the third grade is inappropriate (Morgan, 1988; Gotts, 1988; Kamii, 1985; Cazden, 1981). They suggest that the teaching-learning environment must respond to the learner s developmental level by greater attention being paid to how children learn rather than what they should be taught. In this context, language and interaction between children and adults are deemed essential (Perret-Clermont, 1980; Goodman, 1986; Attneger, et. al. 1987; Pearson, 1989).

Early cognitive development of 3 to 5 year old children, for example, enable them to use symbols to represent reality. When a child in a day care center moves about the house-keeping corner and tells another child, "You be the mommy and I will be the daddy," it is a complex step in the child's understanding of language and behavior. Here, one kind of behavior symbolizes

that of another kind. This language and behavior is replete with meaning. The child's behaviors are influenced by representative nuances that reflect the meaning of mommy and daddy, and various other adult mannerisms. These events are related primarily to semantic meaning because they concern the relationship between experiences and objects in language. (Dimitracopoulou, 1990: Kamii, 1985; Kuchinskas, 1982; Biber, et. al. 1971).

Dore (1975), makes a distinction between

semantic and pragmatic meaning in language.

Pragmatic meanings are defined as language usage
that has some function. Bruner's (1978) studies
of language interactions between parents and their
young children also suggests pragmatic
characteristics. According to Bruner, young
children learn to talk primarily to get things
done with words.

The present study was concerned primarily with the <u>pragmatic</u> aspects of the teacher/child interactions. The language of the teacher frequently serves several functions, among them is to <u>sustain</u>, <u>extend</u>, <u>change</u> or <u>stop</u> the child s



action or speech. These selected categories can occur in two modes, when the teacher is conducting a learning session (instruct), or controlling the relationship between the learner and the environment (manage) (Grossman & Keyes, 1985).

The pragmatic nature of the categories was defined in the following terms:

Sustaining

During an oral interchange between pupil and teacher, the teacher makes a neutral comment or a brief passing response that acknowledges the pupil's oral contribution without influence.

EXAMPLE: The teacher is teaching a lesson on communication to a group of children seated on a carpet in front of her. She is about to read a story that describes a baby cricket who could not make the "chirping" sound that was so common to his family and friends. Amy recognized the picture on the book cover, and interrupts by saying, "I have a little box at home that my mom said is a cricket box." As other children tired to out-do Amy with

stories of their own, the teacher sustains

Amy's contribution by saying, "I am sure that

Amy s cricket box is interesting, but we are

going to move on to our work for today."



Extending

During an oral interchange between pupil and teacher, the teacher encourages an expansion of the pupil's thought and language by challenging, giv ng information, and/or adding new materials.

EXAMPLE: Two children are building a tall tower in the block area. The teacher senses some frustration on their part, because their goal is to construct a tower as tall as their height, and the structure topples over too soon to suit their purpose. Michael realizes that the teacher is watching and yells. "These blocks are cheap, they fall over too easy". The teacher asks several questions that re-direct the pair to consider starting with more blocks at the bottom, and fewer blocks at the top. After several tries. following the teacher's suggestions and encouragement, the children achieve their goal The teacher asks them to describe for others in the class, how they overcame their

problems with the structure. They were pleased to do so.

Changing

During an oral interchange, the teacher redirects the learner's thought and language toward new ideas, materials or activities, while keeping the learner engaged.

EXAMPLE: Mark is proceeding to mix water colors to paint a sailboat that he has sketched out in pencil. It appears that the teacher is afraid that Mark's initiative has the potential for attracting too many others to this unplanned activity — and disrupt the classroom schedule. The teacher engages Mark in a conversation about his plans. After a brief discussion, Mark agrees that it would be better to use crayons instead of water color, because of a quick clean up-time if necessary.



Stopping

During an oral interchange, the teacher limits or halts the learner's ideas and language verbally or nonverbally, with the intent of disengagement.

EXAMPLE: The teacher is discussing a story with a small reading group. It had been their assignment for silent reading earlier in the day. The teacher asks Kim to describe for the group how she felt about the main character. Jayson interrupts, "I saw a movie on TV just like this story". The teacher touches Jayson gently on his arm, ignores his comment, and says, "Let's listen to Kim's answer."

Method

Subjects

For this study, 30 teachers in grades kindergarten through four were selected from three different counties in a southeastern state. There were 2,185 pupils observed for this study. Of

ERIC Full Text Provided by ERIC

a

that group, 998 were girls, and 1,188 were boys

Black girls comprised 37, and black boys numbere

38 in the total group. There were 961 white girls

and 1,149 white boys in the sample. For the

number of observations, there were 20 sessions

recorded in kindergarten, 29 in first grade, 16 in

second grade, 25 in third grade and 15 in fourth

grade for a total of 105 sessions. The adult

participants were all white females and certified

early childhood teachers.

Procedure

The observers were provided two training sessions of three hours each for a total of six hours. Teachers under observation had a mean of 11.9 years of teaching experience.

The training sessions included a review of the National Association for the Education of Young Children (Biber, Shapiro and Wickens, 1971), and the Association for Childhood Education International (Gotts, 1988), guidelines for developmentally appropriate policy, as published by these learned societies. It was apparent early on that the observers and participants were

10

BEST COPY AVAILABLE



familiar with these guidelines. It was their view, that their present day teaching methodology was "developmentally appropriate" as described in the NAEYC and ACEI guidelines. In blind review. as a part of the training session, observers were shown a 30 minute videotape of a language arts lesson for which they had to record and label incidences of sustain, extend, change and stop, in the manage and instruct modes on a form included ın Appendıx A. A college professor of Early Childhood Education who observed and evaluated the same lesson alone, was the index against which all practice session recorders were measured for agreement. Observers selected for this study had an agreement range of .82 to .88, when measured against the college professor. The following formula was used to determine inter-rater agreement:



$$C = 100 \left[\frac{R}{R + D} \right]$$

- C = percentage of inter-rater agreement
- R = the number of recordings that agreed
- D = the number of recordings that did not agree

This study was designed to examine the extent to which the teacher's response to a child-initiated language encounter - during a teacher initiated lesson - served a pragmatic function to sustain, extend, change, or stop, the child as a language participant in the classroom (Grossman & Keyes, 1985). These selected categories were recorded in two modes: instruct and manage. Instruct modes were when the teacher planned and initiated a language arts lesson in a teaching/learning format. Manage modes were when the teacher was controlling the relationship between the learner and the environment during reacher initiated language arts lessons.

The teacher's oral responses to a pupil's initiated language interaction were recorded on a form that was specifically selected for our data recording (Appendix A). Language interaction initiated by the child, and the teacher's response was ou unit of analysis. Teachers in each grade

were observed on three different occasions spread over a 3 week period for 30 minute teaching sessions in areas of language arts (reading, writing, story-telling, and related activities), for a total of 105 sessions.

Twenty observations were done in kindergarten, 29 observations in first grade, 16 observations in second grade, 25 observations in third grade, and 15 in the fourth grade.

Observers were trained early childhood teachers who were enrolled in a graduate research course. Teachers under observation used a variety of developmental approaches to classroom management and instruction.

The teacher in the classroom in a variety of circumstances, uses language that has pragmatic and semantic meaning, in two primary modes - to instruct and to manage. When pupils are asked to organize in groups, line up for leaving the room, are informed about safety procedures prior to a trip or discuss rules of behavior posted in the classroom - these are examples of the teacher giving information in the management mode. When the teacher was enabling the children to construct

knowledge within the context of explaining how to solve a math problem, reading a story to the group or discussing literature, lecturing on a chemical reaction, or a biological phenomenon - this is in the instruct mode.

For this study, pragmatic language was defined as language interaction that was functional (Watzlawick, et.al., 1967: Dore, 1985: Clark and Clark, 1987). The selected pragmatic functions were teacher responses of sustain, extend, change, or stop, to child-initiated language interaction.

Results

Pearson product-moment correlations were employed to measure the strength of the linear relationships between the paired variables - modes (manage, instruct) and categories (sustain, extend, change, stop). Results are displayed in Table I.

For kindergarten, the most significant interaction occurred between the <u>sustain</u> category and <u>instruct</u> mode (.88 p < .05), and the <u>extend</u> category and <u>instruct</u> mode (.87 p < .05).

Interactions between the manage mode and the

extend and change categories were also significant

(.69 p < .05; and .68 p < .05), respectively. To

a somewhat lesser degree, interaction also

occurred between the change category and the

instruct mode (.56 p .05).

Reporting for the 1st grade, revealed similar interactions between the <u>instruct</u> mode and the <u>sustain</u> and <u>extend</u> categories (.77 p < .05; .77 p < .05), respectively. Interaction also occurred between the <u>extend</u> and <u>sustain</u> categories (.51 p < .05).

Interactions in the 2nd grade occurred between instruct and extend (.95 p < .05), and manage and stop (.70 p < .05). For 3rd grade, interactions were reported between sustain and extend categories for the instruct mode (.71 p < .05; .81 p < .05), respectively. Also, interaction occurred between the sustain category and manage mode (.54 p < .05).

The greatest number of interations occurred in the 4th grade, with the manage mode reporting significant interactions for all categories; sustain (.93 p < .05), extend (.85 p < .05),

change (.87 p < .05), and stop (.89 p < .05). The
instruct mode also revealed significant
interactions between all categories, sustain (.92
p < .05), extend (.94 p < .05), change (.80 p < .05), and stop (.82 p < .05). Significant
interaction also occurred between several
categories, stop and sustain (.83 p < .05); and
stop and extend (.74 p < .05), as well as stop and
change (.68 p < .05). This is also true for
extend and sustain categories (.86 p < .05).</pre>

In Table II, the computations of means and standard deviations by grade, displays 2nd grade as having the highest mean averages for extend in the instruct mode (11.69). When compared to all other grades, 3rd grade displayed the lowest mean for extend (7.28) in the instruct mode, and second grade also showed the lowest mean (1.13) for the stop category in the instruct mode. It is also true that the most stop behavior occurred in the 4th grade in the manage mode (5.46), and the instruct mode (4.20).

For <u>sustain</u>, the highest means were displayed in the 1st grade in the <u>instruct</u> mode (8.45). In the <u>change</u> category, 4th grade displayed the

highest means in the <u>instruct</u> and <u>manage</u> modes (4.93 and 5.53, respectively). For all grades, the mean for extend in the <u>instruct</u> mode (8.58), was higher than all other categories. For all grades kindgarten, 1st, 2nd, 3rd and 4th as a total group, the most significant interaction occurred between the <u>instruct</u> mode and <u>extend</u> category (.82 p < .05). It is also true that interaction between the <u>sustain</u> category and the <u>instruct</u> mode (.68 p < .05) was significant (Table I). Interaction between the <u>change</u> category and manage mode, as well as the <u>stop</u> category and the <u>manage</u> mode, also revealed a degree of significance (.72 p < .05; .62 p < .05), respectively.

DISCUSSION

From our data, it is reasonable to suggest
that teachers who define their early child
approach to work as developmentally appropriate,
are providing a language rich environment. This
study was limited to language arts
teaching/learning segments, but there is no reason

to believe that language participation is inhibited when children are involved in classroom activities other than teacher initiated language arts segments.

It is important to make a distinction between language arts and language acquisition. Language arts are embedded in classroom activities that are generally associated with reading, writing, and spelling. Widely held views concerning language acquisition suggest that humans possess innate mechanisms for acquiring speech. Chomsky (1968) and Lenneberg (1969) describe very young children as having extraordinary natural tendencies to attend to sounds of speech. According to Lenneberg, young children develop language more through personal experiences than through adult reinforcement. Language learning begins with innate attributes, whereas language arts represent skills to be taught and learned. Language arts activities during schooling, as well as a child's practice with language in various environmental situations, provide essential opportunities that enable learners to ultimately become a language participant in society. Through language

18

BEST COPY AVAILABLE



interactions, young children learn proficiency in developing a vocabulary appropriate for their age, put words into sentences, and learn the relationships between language and ideas. An important element in this process is that learners have opportunities to practice and test out the effects that their language might have upon others in their social system with whom they wish to communicate. Indications are, from the results of this study, that in early childhood teaching environments, more often than not, young children are encouraged rather than inhibited from language participation.



References

- Altwerger, B., Edelsky, C. and Flores, B.M. (1987). Whole language: What's new? The Reading Teacher, 41, 144-154.
- Biber, B. (1984). <u>Early education and</u>
 psychological development. New Haven, Conn:
 Yale University Press.
- Biber, B.; Shapiro, E.; and Wickens, D. (1971).

 Promoting cognitive growth from a

 developmental-interaction point of view.

 Washington, D.C.: NAEYC.
- Cazden, C.B. (Ed.) (1981). Language in early childhood education. Washington, DC: NAEYC.
- Chomsky, N. '(1968). Language and Mind. New York:
 Harcourt Brace Jovanovich.
- Clark, H.H. and Clark, E.V. (1987). Psychology and language. NY: Harcourt, Brace, Javanovich.
- Dimitracopoulou, I. (1990). <u>Conversation</u>

 <u>Competence and Social Development</u>. New York,

 NY: Cambridge University Press.
- Dore, J. (1975). Halophrases, speech acts and language universals. <u>Journal of Child Language</u>, 3, 13-28.
- Goodman, K.S. (1986). What's Whole in Whole Language? Portsmouth, NH: Heinemann.
- Gotts, E.E. (1988). ACEI position paper: The right to quality child care. Childhood Education, (64), 5.
- Grossman, B.D., and Keyes, C. (1985). <u>Early</u>
 <u>Childhood Administration</u>. Allyn and Bacon:
 Boston, Mass.



- Genishi, C. (1987). Acquiring oral language and communication competence. In C. Seefeldt (Ed.), the early childhood curriculum: A reveiw of current research (pp. 75-106). NY: Teachers College Press.
- Kamii, K. (1985). Young Children Reinvent
 Arithmetic. Teachers College Press: New
 York.
- Kuchinskas, G. (September, 1982). Developing interactive language experience for the computer. <u>Computing Teacher</u>, 10, 55-56.
- Lenneberg, E.H. (1969). On explaining language. Science, 164, 635-643.
- May, Frank (1967). <u>Teaching language as</u>
 communication-to-children. Charles Merrill:
 Columbus, Ohio.
- Morgan, H. (1988). Excellence: Giving the name a bad place. <u>Dimensions</u>, April.
- Pearson, P.D. (1989). Reading the whole language movement. The Elementary School Journal, 90, 231-241.
- Perret-Clermont, A. (1980). Social interaction and cognitive development in children. New York: Academic Press.
- Plaget, J. (1959). The language and thought of the child. (M. Gabain and R. Gabain translation). London: Routledge and Kegan Paul.
- Richards, B. (1996). <u>Language Development and Individual Differences</u>. New York, NY: Cambridge Press.
- Serbin, L.A., and O'Leary, D. (1975). How nursery schools teach girls to shut up. Psychology Today, December.



- Tovey, R.D., Lynn, G.J. and Szporer, M. (1988).

 Beginning reading: A natural learning process. Childhood Education, (64), 5.
- Vygotsky, L.S. (1962). Thought and language. Cambridge, MA: MIT Press.
- Watzlawick, P.; Bearin, H.J.; and Jackson, D.D. (1967). Pragmatics of human communication. New York: W.W. Norton and Company.



Kindergarten

	Sustain	Extend	Change	Stop	Instruct	Manage
Sustain	1.0000	0.6898	0.3151	-0.3302	0.8789	0.4975
Extend	1.000	1.0000	0.6751	0.1729	0.8685	0.6926
Change		1.0000	1.0000	0.1729	0.5612	0.6757
Stop			1.0000			
Instruct				1.0000	-0.0171	0.3405
Manage					1.0000	0.4693
Mariage						1.0000
					Þ	< .05
		F	irst Grade			
	Sustain	Extend	Change	Stop	Instruct	Manage
9 • • • • •			_	-		_
Sustain	1.0000	0.5146	0.0411	-0.3238	0.7659	0.3816
Extend		1.0000	0.2738	-0.0067	0.7737	0.3679
Change			1.0000	0.1349	0.2458	0.3877
Stop				1.0000	-0.0540	0.2041
Instruct					1.0000	0.0888
Manage		·				1.0000
					P	< .05
·····		Se	econd Grade			
	Sustain	Extend	Change	Stop	Instruct	V anasa
		Datona	Change	Stop	Instruct	Manage
Sustain	1.0000	-0.1548	0.4774	0.1653	0.0592	0.3975
Extend		1.0000	-0.0652	-0.3020	0.9525	-0.3965
Change			1.0000	-0.2170	0.1142	0.0137
Stop				1.0000	-0.2314	0.6967
Instruct					1.0000	-0.4093
Manage						1.0000
					Þ	< .05
		m	Shana Gu a			
		π.	hird Grade			
	Sustain	Extend	Change	Stop	Instruct	Manage
Sustain	1.0000	0.3200	0.2524	-0.2236	0.7116	0.5435
Extend		1.0000	0.3251	-0.1290	0.8065	0.1581
Change			1 0000	0 2515		

20. > g

0.3642

0.1758

1.0000

-0.1541

0.3421

0.0257

1.0000



Change

Manage

Instruct

Stop

-0.2515

1.0000

1.0000

Fourth Grade

	Sustain	Extend	Change	Stop	Instruct	Manage
Sustain Extend Change Stop Instruct Manage	1.0000	0.8639 1.0000	0.7775 0.7636 1.0000	0.8253 0.7 4 12 0.6800 1.0000	0.9158 0.9389 0.8008 0.8207 1.0000	0.9257 0.8 14 0.8721 0.8937 0.8550 1.0000

20. v g

All Grades

	Sustain	Extend	Change	Stop	Instruct	Manage
Sustain Extend Change Stop Instruct Manage	1.0000	0.3121 1.0000	0.3075 0.2714 1.0000	0.0352 0.0543 0.4550 1.0000	0.6825 0.8230 0.3632 0.1250 1.0000	0.4707 0.2513 0.7224 0.6228 0.2568 1.0000

<u>p</u> ← .05



Table II

Mean Number of Responses By Grade, Category, and Mode

Kindergarten

Instruct Mode

	Sustain	Extend	Change	Stop
М	6.85	8.25	3.65	2.15
SD	6.67	5.57	1.90	1.81

Manage Mode

	Sustain	Extend	Change	Stop
М	2.65	1.30	3.35	3.25
SD	4.38	1.75	2.30	2.34

First Grade

Instruct Mode

	Sustain	Extend	Change	Stop
M	8.45	8.62	3.10	2.52
SD	6.53	5.60	1.92	2.63

Manage Mode

	Sustain	Extend	Change	Stop
М	2.96	1.62	2.72	2.86
SD	3.93	1.74	2.15	2.31



Second Grade

Instruct Mode

	Sustain	Extend	Change	Stop
М	4.56	11.69	2.31	1.13
SD	3.31	16.68	1.89	1.20

Manage Mode

_	Sustain	Extend	Change	Stop
М	1.63	1.81	2.31	3.31
SD	1.36	2.20	1.82	4.09

Third Grade

Instruct Mode

	Sustain	Extend	Change	Stop
М	6.92	7.28	3.08	2.40
SD	6.77	8.02	1.50	3.24

Manage Mode

	Sustain	Extend	Change	Stop
М	1.96	1.44	1.16	1.72
SD	2.78	1.50	1.18	1.10



Fourth Grade

Instruct Mode

	Sustain	Extend	Change	Stop
M	6.27	7.80	4.93	4.20
SD	3.75	3.80	2.40	3.65

Manage Mode

	Sustain	Extend	Change	Stop
М	4.93	4.40	5.53	5.46
SD	3.94	3.14	4.03	3.98

All Grades

Instruct Mode

	Sustain	Extend	Change	Stop
М	6.88	8.58	3.34	2.45
SD	5.93	8.55	2.01	2.76

Manage Mode

	Sustain	Extend	Change	Stop
M	2.74	1.94	2.81	3.10
SD	3.58	2.23	2.65	2.91



Appendix A

Date: Time:		Person Observed:				
		Head Teacher Undergraduat			ssistant	
Recorder:			_			
	Sustain	Extend	Change	Stop	Total	96
Instruct		_	I[- -
Manage	_	_ -				 !
Totals	_	_ _	 			
Percentage		_	11 		 	
Type of Act:		ning time, st	cory tellir	ng, math i	nstruction	, etc.)
Age of Grou	p					
Size of Grou	up					
P	C + - 1					

Source: Early Childhood Administration

by Bruce D. Grossman and Carol Keyes

1985

